

From glowbugs@theporch.com Thu Sep 12 02:34:40 1996  
Return-Path: <glowbugs@theporch.com>  
Received: from uro (localhost.theporch.com [127.0.0.1]) by uro.theporch.com  
(8.8.Beta.2/AUX-3.1.1) with SMTP id CAA12580; Thu, 12 Sep 1996 02:31:40 -0500  
(CDT)  
Date: Thu, 12 Sep 1996 02:31:40 -0500 (CDT)  
Message-Id: <199609120731.CAA12580@uro.theporch.com>  
Errors-To: ws4s@midtenn.net  
Reply-To: glowbugs@theporch.com  
Originator: glowbugs@theporch.com  
Sender: glowbugs@theporch.com  
Precedence: bulk  
From: glowbugs@theporch.com  
To: Multiple recipients of list <glowbugs@theporch.com>  
Subject: GLOWBUGS digest 288  
X-Listprocessor-Version: 6.0c -- ListProcessor by Anastasios Kotsikonas  
X-Comment: Please send list server requests to listproc@theporch.com  
Status: 0

#### GLOWBUGS Digest 288

Topics covered in this issue include:

- 1) Re: Regen Questions  
by rdkeys@csemail.cropsci.ncsu.edu
- 2) AN/USM-223 Multimeter --- need info on  
by rdkeys@csemail.cropsci.ncsu.edu
- 3) BA/GB Friendly Fist Function tonite, anyone?????  
by rdkeys@csemail.cropsci.ncsu.edu

-----  
Date: Wed, 11 Sep 1996 10:46:26 -0400 (EDT)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: kj7f@micron.net  
Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com  
Subject: Re: Regen Questions  
Message-ID: <9609111446.AA112716@csemail.cropsci.ncsu.edu>

> First, it will oscillate with as little as 10 volts on the plate.  
> Is this normal or do I need to reduce the number of turns on the  
> tickler coil?

Early vacuum tubes, particularly audions and early 00 or 01 tubes  
were designed to operate best in detector service, as a regenerative  
detector, with 22.5 volts MAX on the plates. It is not uncommon  
for triode detectors, properly set up, to oscillate entirely well on  
as little as 6 volts on the plate. Best or optimum operation for the

early style tubes is about 20 volts on the plate. For a type 30, anywhere around 22.5 +/- 10v should do perfectly fine.

> Second, I used a type 30 tube and when I first applied power I  
> thought it was a bad tube. I had never seen a tube where the  
> filaments do not glow. I have several type 30s and they are all  
> the same so I assume this is normal. Are there other tubes which  
> have filaments that do not glow? Almost wish I had used another  
> tube as part of the mystique of old radios are the glowing filaments.

Most tube filaments will glow if you are in a darkened room. The battery tubes were designed to emit sufficient electrons when passing only 30-60 ma of current. That is not going to glow brightly.

Most regen detectors using filamentary triodes were designed to operate using the minimum filament voltage that would allow oscillation. For some tubes such as the 30, that can be as little as 1.1 volts (obtained from an edison cell). It is common practice to put in a filament current control rheostat with an open at one end for shutting off filament current entirely. Such rheostats had a value of around 3-20 ohms, but the smaller the current required for the filament, the greater the resistance is required for allowing use of a standard battery. Most farm radios were run from 2.0-2.2 volts (a pair of edison cells or one lead-acid cell). Sometimes you can find paired edison cells in their wooden cases, if you are lucky. The voltage is not critical, but for best sensitivity, you need to operate the filament at some heat that gives sufficient electron flow, but not full electron flow. Why this is, I don't know, but on my '01A sets, when they are just perceptibly glowing, I get the best regeneration. That turns out to be about 4 volts rather than 5 volts on the filament. For the 30, I would expect the same to occur at about 1.5-1.75 volts rather than 2.0 volts. You might try varying the voltage from about 1 volt to 2.0 volts and report back what you find in the sensitivity characteristics. Also, try varying the plate voltage to see its effect on the regeneration, and on the sensitivity. There should be a point around 20 volts or so that gives good control, with good sensitivity.

73/ZUT DE NA4G/Bob UP

-----

Date: Wed, 11 Sep 1996 10:59:08 -0400 (EDT)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: glowbugs@theporch.com, boatanchors@theporch.com  
Cc: rdkeys@csemail.cropsci.ncsu.edu ()  
Subject: AN/USM-223 Multimeter --- need info on  
Message-ID: <9609111459.AA112741@csemail.cropsci.ncsu.edu>

At the infamous Shelby hamfest I picked up a good little test vom for 5 bucks, but I can't figure out what batteries go into the beastie. Normal batteries don't fit (AA cells or C cells). So, anyone got a manual or schematic or maybe can tell me what batteries go into the AN/USM-223 Multimeter?

TNX/73/ZUT DE NA4G/Bob  
rdkeys@csemail.cropsci.ncsu.edu

-----  
Date: Wed, 11 Sep 1996 14:08:40 -0400 (EDT)  
From: rdkeys@csemail.cropsci.ncsu.edu  
To: glowbugs@theporch.com, boatanchors@theporch.com  
Subject: BA/GB Friendly Fist Function tonite, anyone?????  
Message-ID: <9609111808.AA100220@csemail.cropsci.ncsu.edu>

Mebbee's me sees an' 'ears a few o' de ol' bottleburners again, tonight?????

QTR 0100 UTC QRG 7050R500 KHZ  
QTR 0200 UTC QRG 3579R545 KHZ  
QTR 0300 UTC QRG 1802R500 KHZ

BA/GB ZUT/73 DE NA4G UP

-----  
End of GLOWBUGS Digest 288  
\*\*\*\*\*